

Preliminary Amendment
Application No. 10/684,074

Atty. Dkt. No. 79568

Listing of Claims:

Claims 1-4 (canceled).

Claim 5 (previously presented): A method of making a frozen concentrated liquid whole egg, the method comprising:

heating the liquid whole egg for a time and temperature which are effective for not coagulating the egg and which are effective for removing water from the egg to provide a concentrated liquid whole egg having not more than about 67 weight percent water; and freezing the concentrated liquid whole egg to provide a frozen concentrated liquid whole egg.

Claim 6 (previously presented): The method as recited in claim 5, wherein the egg is pasturized before or after concentration.

Claim 7 (previously presented): The method as recited in claims 5 or 6, wherein the concentrated liquid whole egg is frozen at a temperature of from about 10°F to about -10°F to provide the frozen concentrated liquid whole egg.

Claim 8 (previously presented): A method of making a frozen concentrated liquid whole egg, the method comprising:

heating liquid whole egg for a time and temperature which are effective for removing water from the liquid whole egg such that the egg will have from about 33% to about 49 weight percent solids, from about 51 to about 67 weight percent water, and a viscosity at about 40°F of from about 1,000 to about 5,000 cps to provide a concentrated liquid whole egg; and freezing the concentrated liquid whole egg to provide a frozen concentrated liquid whole egg.

Claim 9 (previously presented): The method as recited in claim 10, wherein the liquid whole egg is heated for about 24 seconds to about 30 seconds at a temperature of from about 105°F to about 130°F.

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Claim 10 (previously presented): The method as recited in claim 9, wherein the concentrated liquid whole egg is frozen at a temperature of from about -10°F to about 10°F to provide the frozen concentrated liquid whole egg.

Claim 11 (previously presented): The method as recited in claims 8, 9 or 10, wherein the egg is pasturized before or after concentration.

Claim 12 (previously presented): A method of making a frozen concentrated liquid whole egg, the method comprising:

heating liquid whole egg for a time and temperature which are effective for not coagulating the egg and which are effective for removing water from the liquid whole egg such that the egg will be concentrated from about 1.5 to about 2.1 times to provide a concentrated liquid whole egg; and

freezing the concentrated liquid whole egg to provide a frozen concentrated liquid whole egg.

Claim 13 (previously presented): The method as recited in claim 12, wherein the concentrated liquid whole egg is frozen at a temperature of from about -10°F to about 10°F to provide the frozen concentrated liquid whole egg.

Claim 14 (previously presented): The method as recited in claim 12, wherein the liquid whole egg is heated for about 24 seconds to about 30 seconds at a temperature of from about 105°F to about 130°F.

Claim 15 (previously presented): The method as recited in claims 12, 13 or 14, wherein the egg is pasturized before or after concentration.

Claim 16 (previously presented): The method as recited in claims 12, 13 or 14, wherein the egg is concentrated to a solids level of from about 33 to about 49 weight percent and a viscosity at about 40°F after thawing of from about 1,000 to about 5,000 cps.

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Claims 17-27 (canceled).

Claim 28 (previously presented): A method of making a frozen concentrated liquid whole egg, the method comprising:
passing a film of liquid whole egg over the surface of a plate evaporator to heat the liquid whole egg for a time and temperature which are effective for removing water from the liquid whole egg such that the egg will have from about 33% to about 49 weight percent solids, from about 51 to about 67 weight percent water, and a viscosity at about 40°F of from about 1,000 to about 5,000 cps to provide a concentrated liquid whole egg; and
freezing the concentrated liquid whole egg to provide a frozen concentrated liquid whole egg.

Claim 29 (previously presented): The method as recited in claim 28, wherein the liquid whole egg is heated for about 24 to about 30 seconds at a temperature of not more than about 130°F. by passing the liquid egg through a plate heat evaporator more than one time.

Claim 30 (previously presented): The method as recited in claim 28, wherein the concentrated liquid whole egg is frozen at a temperature of from about -10°F to about 10°F to provide the frozen concentrated liquid whole egg.

Claim 31 (previously presented): The method as recited in claims 28 or 29, wherein after thawing the concentrated liquid whole egg product has less than about 1000 plate count per gram of concentrated egg, less than about 10 E. coli and coliforms per gram of concentrated egg, negative salmonellae and negative listeria.

Claim 32 (previously presented): The method as recited in claims 28, 29, or 30, wherein the egg is pre-heated to a temperature of at least 130°F before the egg is passed through the plate heat evaporator.

Claims 33-39 (canceled).

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Claim 40 (previously presented): The method as recited in claims 5 or 6 wherin the concentrated egg has from about 67 weight percent to about 51 weight percent water.

Please add the following new claims.

41. (new) A method of making a concentrated liquid whole egg, the method comprising: pasteurizing liquid whole egg in either concentrated or non-concentrated form to provide a liquid egg having less than about 1000 plate count per gram of liquid egg, less than about 10 E. coli and coliforms per gram of liquid egg, negative salmonellae and negative listeria.; preheating the liquid egg before or after pasteurization to a temperature of at least 100°F to provide a preheated liquid egg;

evaporating water from the preheated liquid whole egg by passing a film of the preheated liquid whole egg over a heated surface to heat the liquid whole egg for a time and temperature which are effective for removing water from the liquid whole egg to provide a concentrated egg such that the concentrated egg will have from about 33% to about 49 weight percent solids, from about 51 to about 67 weight percent water, the temperature difference between the egg and heated surface not more than 6°F, the water in the preheated liquid whole egg being evaporated in more than one stage of heating, each stage resulting in a concentrated egg with an increased solids content, the concentrated liquid whole egg having less than about 1000 plate count per gram of concentrated egg, less than about 10 E. coli and coliforms per gram of concentrated egg, negative salmonellae and negative listeria..

42. (new) The method as recited in claim 41 wherin the heated surface in each stage has a temperature of from 105° to 130°F.

43. (new) The method as recited in claim 42 wherin each stage is from 8 to 10 seconds.

44. (new) The method as recited in claim 41 wherin water is removed from the preheated liquid whole egg for a time and temperature to provide the concentrated egg with a viscosity at about 40°F of from 1000 to 5000 cps.

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45. (new) The method as recited in claim 42 wherein water is removed from the preheated liquid whole egg for a time and temperature to provide the concentrated egg with a viscosity at about 40°F of from 1000 to 5000 cps.

46. (new) The method as recited in claim 43 wherein water is removed from the preheated liquid whole egg for a time and temperature to provide the concentrated egg with a viscosity at about 40°F of from 1000 to 5000 cps.

47. (new) A method of making a concentrated liquid whole egg, the method comprising: preheating liquid whole egg to a temperature of at least 100°F to provide a preheated liquid whole egg;

evaporating water from the preheated liquid whole egg by passing a film of the preheated liquid whole egg over a heated surface to heat the liquid whole egg for a time and temperature which are effective for removing water from the liquid whole egg to provide a concentrated egg such that the concentrated egg will have from about 33% to about 49 weight percent solids, from about 51 to about 67 weight percent water, and a viscosity at about 40°F of from 1,000 to 5,000 cps to provide a concentrated liquid egg, the temperature difference between the egg and heated surface not more than 6°F, the water in the preheated liquid whole egg being evaporated in more than one stage of heating, each stage resulting in a concentrated egg with an increased solids content, the concentrated liquid whole egg having less than about 1000 plate count per gram of concentrated egg, less than about 10 E. coli and coliforms per gram of concentrated egg, negative salmonellae and negative listeria..

48. (new) The method as recited in claim 47 wherein the heated surface in each stage has a temperature of from 105° to 130°F.

49. (new) The method as recited in claim 48 wherein each stage is from 8 to 10 seconds.

50. (new) A product made by the method of claim 41.

51. (new) A product made by the method of claim 47.